

The copyright © of this thesis belongs to its rightful author and/or other copyright owner. Copies can be accessed and downloaded for non-commercial or learning purposes without any charge and permission. The thesis cannot be reproduced or quoted as a whole without the permission from its rightful owner. No alteration or changes in format is allowed without permission from its rightful owner.



INVESTMENT INTENTIONS MODEL OF PAKISTANI INVESTORS



IMRAN ARSHAD

**DOCTOR OF PHILOSOPHY
UNIVERSITI UTARA MALAYSIA
SEPTEMBER, 2019**

INVESTMENT INTENTIONS MODEL OF PAKISTANI INVESTORS



IMRAN ARSHAD

UUM

Universiti Utara Malaysia

**Thesis Submitted to
School of Economics, Finance and Banking,
Universiti Utara Malaysia
In Fulfilment of the Requirement for the Degree of Doctor of Philosophy**



Kolej Perniagaan
(College of Business)
Universiti Utara Malaysia

PERAKUAN KERJA TESIS / DISERTASI
(Certification of thesis / dissertation)

Kami, yang bertandatangan, memperakukan bahawa
(We, the undersigned, certify that)

IMRAN ARSHAD (95728)

calon untuk Ijazah
(candidate for the degree of)

DOCTOR OF PHILOSOPHY (FINANCE AND BANKING)

telah mengemukakan tesis / disertasi yang bertajuk:
(has presented his/her thesis / dissertation of the following title):

INVESTMENT INTENTIONS MODEL OF PAKISTANI INVESTORS

seperti yang tercatat di muka surat tajuk dan kulit tesis / disertasi.
(as it appears on the title page and front cover of the thesis / dissertation).

Bahawa tesis/disertasi tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan, sebagaimana yang ditunjukkan oleh calon dalam ujian lisan yang diadakan pada:

15 April 2019.

(That the said thesis/dissertation is acceptable in form and content and displays a satisfactory knowledge of the field of study as demonstrated by the candidate through an oral examination held on:

15 April 2019).

Pengerusi Viva
(Chairman for Viva)

: **Prof. Dr. Jamal Ali**

Tandatangan
(Signature)

Pemeriksa Luar
(External Examiner)

: **Prof. Dr. Jarita Duasa**

Tandatangan
(Signature)

Pemeriksa Dalam
(Internal Examiner)

: **Assoc. Prof. Dr. Kamarun Nisham Taufil Mohd**

Tandatangan
(Signature)

Tarikh: **15 April 2019**
(Date)

Nama Pelajar
(Name of Student)

: Imran Arshad

Tajuk Tesis / Disertasi
(Title of the Thesis / Dissertation)

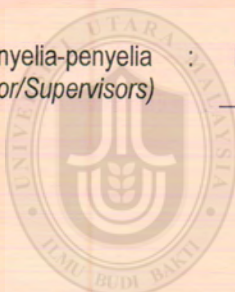
: Investment Intentions Model of Pakistani Investors

Program Pengajian
(Programme of Study)

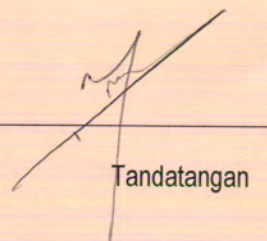
: Doctor of Philosophy (Finance and Banking)

Nama Penyelia/Penyelia-penyelia
(Name of Supervisor/Supervisors)

: Prof. Dr. Yusnidah Ibrahim



UUM
Universiti Utara Malaysia


Tandatangan

PERMISSION TO USE

In presenting this thesis in fulfilment of the requirements for a Post Graduate degree from the Universiti Utara Malaysia (UUM), I agree that the Library of this university may make it freely available for inspection. I further agree that permission for copying this thesis in any manner, in whole or in part, for the scholarly purpose may be granted by my supervisor(s) or in their absence, by the Dean of School of Economic Finance and Banking where I did my thesis. It is understood that any copying or publication or use of this thesis or parts of it for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the (UUM) in any scholarly use which may be made of any material in my thesis.

Request for permission to copy or to make other use of materials in this thesis in whole or in part should be addressed to:

Dean of School of Economics, Finance and Banking

Universiti Utara Malaysia

06010 UUM Sintok

Kedah Darul Aman



ABSTRACT

This research aims to present a model of the investment decision-making process. In the review of extensive literature, it has been identified that individual investors have been investigated from either behavioural finance or social psychological perspective but rarely from consumer behaviour perspective. To fill in the identified gaps, this research integrates behavioural finance, consumer behaviour and social psychological perspectives to provide a model to explain investors' decision-making. This research also proposed the moderating effect of perceived risk on the relationship between behavioural finance factors, consumer behaviour factors, social psychological factors and investment intentions. This research is based on the theory of planned behaviour, social cognitive theory and prospect theory. The data was collected by using a survey questionnaire filled by employees who are working at different organisations in Pakistan. The collected data was analysed using SmartPLS. After the preliminary tests and assumptions testing, 548 observations were found to be useful. The measurement model assures the validity and reliability of the focal constructs. The hypothesis testing indicate that uncertainty avoidance, overconfidence, product knowledge, product involvement, perceived behavioural control and subjective norm appear to have significant, while risk avoidance has insignificant influence on investment intentions. Perceived risk only moderates the relationship between perceived behavioural control and investment intentions. It is recommended that the stock exchange commission may offer some risk-adjusted investment options for individual investors and provide them with awareness to increase their control over investment in the stock market. In addition, friends, family and important people around can be used as sources to promote stock investment and to increase the level of investment intentions.

Keywords: behavioural finance, consumer behaviour, social psychology, individual investors, investment intentions

ABSTRAK

Kajian ini bertujuan untuk menghasilkan sebuah model proses membuat keputusan pelaburan oleh pelabur. Melalui sorotan literatur yang menyeluruh, dikenalpasti bahawa kajian mengenai pelabur individu telah dilakukan dari perspektif tingkah laku kewangan atau psikologi sosial, tetapi jarang dari perspektif tingkah laku pengguna. Bagi mengisi jurang tersebut, penyelidikan ini menggabungkan tingkah laku kewangan, tingkah laku pengguna serta perspektif psikologi sosial untuk membina model bagi menjelaskan proses pembuatan keputusan oleh pelabur. Selain itu, kajian ini mencadangkan kesan penyederhanaan risiko yang dirasa terhadap hubungan di antara faktor tingkah laku kewangan, faktor tingkah laku pengguna, faktor psikologi sosial dan niat pelaburan. Kajian ini adalah berdasarkan teori tingkah laku yang dirancang, teori kognitif sosial dan teori prospek. Data kajian ini dikumpul menggunakan soal selidik tinjauan yang diisi oleh pekerja di dalam organisasi yang berbeza di Pakistan. Data yang dikumpulkan seterusnya dianalisis menggunakan SmartPLS. Selepas ujian awal dan ujian andaian, 548 pemerhatian telah didapati berguna. Model pengukuran memastikan kesahan dan kebolehpercayaan pembinaan konstruk fokal. Pengujian hipotesis telah menunjukkan bahawa penghindaran ketidakpastian, sifat terlalu yakin, pengetahuan mengenai produk, penglibatan terhadap produk, kawalan tingkah laku yang dirasa dan norma subjektif sebagai signifikan, sementara penghindaran risiko pula mempunyai pengaruh yang tidak penting terhadap niat pelaburan. Risiko yang dirasa menyederhanakan hubungan di antara kawalan tingkah laku yang dirasa dan niat pelaburan. Adalah disyorkan bahawa suruhanjaya bursa saham boleh menawarkan beberapa pilihan pelaburan yang telah disesuaikan dengan risiko kepada pelabur individu dan memberi mereka kesedaran untuk meningkatkan kawalan terhadap pelaburan pasaran saham. Di samping itu, rakan, keluarga dan orang yang penting di sekeliling mereka boleh digunakan sebagai sumber untuk mempromosikan pelaburan saham dan meningkatkan tahap niat pelaburan.

Kata kunci: kewangan tingkah laku, tingkah laku pengguna, psikologi sosial, pelabur individu, niat pelaburan

ACKNOWLEDGEMENT

I am thankful to Almighty ALLAH for giving me strength to accomplish my PhD journey. My gratitude to Holy Prophet Muhammad (Peace Be Upon Him and His Nobel Family), His Family (Peace Be Upon Them), for guiding me towards light of knowledge. In addition, I would like to thank my supervisor, Prof. Dr. Yusnidah Ibrahim, for her wonderful and kind supervision from the beginning to end of my thesis. I am also grateful to my examiners Assoc. Prof. Dr. Kamarun Nisham Bin Taufil Mohd and Prof. Dr. Jarita Duasa.

I am also deeply indebted to my lecturers who prepared me to handle PhD Program, especially Prof. Nisar Ahmed Siddiqui, Prof. Dr. Niaz Ahmed Bhutto, Prof. Dr. Sarwar M. Azhar, Prof Dr S.M. Aqil Burney, Assoc. Prof. Syed Zulfiqar Ali Shah, Assoc. Prof. Imran Hameed, Assoc. Prof Dr. Ghulam Ali Arain, Assoc. Prof. Dr. Muhammad Ali Asadullah. I am also grateful to my other teachers for their valuable advice and guidance during my research work. I would like to mention the support of my fellows Prof. Dr. Mir Salim Ullah, Prof. Dr. Tahir Jahan Khan, Dr. Nadeem Khalid, Dr. Irshad Hussain Sarki, Dr. Ehsan ul Hassan, Dr. Muzaffar Hussain Shah, Dr. Azeem Ahmed, Dr. Noman Yaseen, Dr. Talha Imam Jamro, Dr. Ali Zamin and Mr. Ali Mohsin.

I am immensely thankful to my family, whose support has instilled the realization of my dream regarding higher education, especially, my parents, who sacrificed a lot for my better future. My gratitude goes to my family members Mr & Mrs. Sahir Arshad, Mr & Mrs. Fraz Arshad, Mr & Mrs. Nadeem Arshad, Mr. & Mrs. Adnan Arshad and my nephews Shabbir Ali Fraz, Fiaz Ali, Abbas Ali, Hasnain Ali and my daughters Maha, Fiza, Rida, Zara and Eshab. My PhD journey is also beholden to my late uncle and aunty Mr & Mrs. Ghulam Ali Tariq whose life is inspirational for us and his efforts to make our life successful will be remembered always.

My foster families also support me a lot during my rough and tough days in Malaysia. I am thankful to Prof. Dr. Ipung Sri Purwanti Hery and family, Prof. Dr. Nena Valdez and family, Mr. Cha Kim Loh and family, Prof. Imam Bux Jamro and family, Haji Sumalani Baloach and others who played a significant role in supporting me during my PhD journey. I am also grateful to all those whose help and love encouraged me to fulfil my aspiration of doing PhD.

TABLE OF CONTENTS

Title	Page
PERMISSION TO USE	i
ABSTRACT	ii
ABSTRAK	iii
ACKNOWLEDGEMENT	iv
LIST OF TABLES	x
LIST OF FIGURES	xi
CHAPTER 1 INTRODUCTION	1
1.1 Background and Introduction of the Study	1
1.2 Statement of the Problem	6
1.3 Research Questions	16
1.4 Research Objectives	16
1.5 Significance of the Study	17
1.6 Scope of the Study	18
1.7 Operational Definitions	19
1.7.1 Risk Avoidance	19
1.7.2 Uncertainty Avoidance	19
1.7.3 Overconfidence	20
1.7.4 Product Knowledge	20
1.7.5 Product Involvement	20
1.7.6 Perceived Behavioural Control	20
1.7.7 Subjective Norms	21

1.7.8	Perceived Risk	21
1.7.9	Investment Intention	21
1.8	Summary	21
CHAPTER 2 LITERATURE REVIEW		23
2.1	Introduction	23
2.2	Investment Intentions	23
2.3	Theoretical Framework	26
2.3.1	Theory of Planned Behaviour	26
2.3.2	Social Cognitive Theory	31
2.3.3	Prospect Theory	33
2.4	Behavioural Finance Perspective	35
2.4.1	Risk Avoidance	39
2.4.2	Uncertainty Avoidance	44
2.4.3	Overconfidence	45
2.5	Consumer Behaviour Perspective	53
2.5.1	Product Knowledge	55
2.5.2	Product Involvement	58
2.6	Social Psychological Perspective	64
2.6.1	Perceived Behavioural Control	64
2.6.2	Subjective Norms	66
2.7	Perceived Risk	70
2.8	Summary	74

CHAPTER 3 DATA AND METHODOLOGY	75
3.1 Introduction	75
3.2 Research Philosophy	75
3.3 Research Design	77
3.4 Theoretical Framework and Hypothesis Development	78
3.4.1 Risk Avoidance and Investment Intentions	79
3.4.2 Uncertainty Avoidance and Investment Intentions	80
3.4.3 Overconfidence and Investment Intentions	81
3.4.4 Product Knowledge and Investment Intentions	82
3.4.5 Product Involvement and Investment Intentions	84
3.4.6 Perceived Behavioural Control and Investment Intentions	85
3.4.7 Subjective Norms and Investment Intentions	86
3.4.8 Perceived Risk and Investment Intentions	88
3.5 Measurements of variables	91
3.6 The Data Collection Approach	92
3.7 Population of Interest and the Obtained Sample	92
3.8 Reliability Test	94
3.9 Data Analysis	96
3.9.1 Techniques of Data Analysis	96
3.9.1.1 Normality Test	98
3.9.1.2 Multicollinearity	99
3.10 Summary	99

CHAPTER 4 DATA ANALYSIS AND RESULTS	100
4.1 Introduction	100
4.2 Response Rate	100
4.3 Preliminary Analysis	101
4.3.1 Missing Values Analysis	102
4.3.2 Outliers Assessment	103
4.3.3 Data Normality Assessment	104
4.3.4 Multicollinearity Analysis	106
4.4 Descriptive Analysis	109
4.5 Assessment of PLS-SEM Path Model	113
4.6 Assessment of Measurement Model	114
4.6.1 Individual Item Reliability	115
4.6.2 Internal Consistency Reliability	115
4.6.3 Convergent Validity	120
4.6.4 Discriminant Validity	120
4.7 Assessment of Significance of the Structural Model	124
4.7.1 Assessment of Variance Explained in the Endogenous Latent Variable	131
4.7.2 Assessment of Effect Size (f^2)	132
4.7.3 Assessment of Predictive Relevance	133
4.8 Summary	136
 CHAPTER 5 DISCUSSION AND RECOMMENDATIONS	 138
5.0 Introduction	138
5.1 Summary of the Findings	138

5.2	Discussion on Key Findings	139
5.2.1	Impact of Risk Avoidance on Investment Intentions	140
5.2.2	Impact of uncertainty avoidance on investment intentions	141
5.2.3	Impact of Overconfidence on Investment Intentions	142
5.2.4	Impact of Product Knowledge on Investment Intention	144
5.2.5	Impact on Product Involvement on Investment Intentions	145
5.2.6	Impact of Perceived Behavioural Control on Investment Intentions	145
5.2.7	Impact of Subjective Norms on Investment Intentions	147
5.3	Moderating Effect of Perceived Risk	148
5.4	Theoretical and practical implications of the Study	150
5.4.1	Theoretical Implications	150
5.4.2	Practical Implications	151
5.5	Limitations and Future Research Recommendations	154
5.6	Conclusion	157
	REFERENCES	160
	APPENDICES	193
	APPENDIX A	193

LIST OF TABLES

Table 1.1 Individual Investors' Participation in the Stock Market	4
Table 2.1 Relationship between Risk Avoidance, Uncertainty Avoidance, Overconfidence and Investment Intentions	49
Table 2.2 Product Knowledge, Product Involvement and Investment Intentions	62
Table 2.3 Perceived Behavioural Control, Subjective Norms and Investment Intentions	68
Table 2.4 Relationship between Perceived risk and Investment Intentions.....	72
Table 3.1 Summary of measurement	91
Table 4.1 Response Rate of the Questionnaire	101
Table 4.2 Missing Values	102
Table 4.3 Skewness and Kurtosis	106
Table 4.4 Correlation Matrix of the Exogenous Latent Constructs	107
Table 4.5 Tolerance and Variance Inflation Factors (VIF).....	108
Table 4.6 Demographic Profile of Respondents	109
Table 4.7 Descriptive Statistics for Latent Variables	111
Table 4.8 Loadings, Composite Reliability and Average Variance Extracted	117
Table 4.9 Latent Variable Correlations and Square Roots of Average Variance Extracted	121
Table 4.10 HTMT Ratio	122
Table 4.11 Cross Loadings	123
Table 4.12 Structural Model Assessment	129
Table 4.13 Variance Explained in the Endogenous Latent Variable	131
Table 4.14 Effect Sizes of the Latent Variables on Cohen's (1988) Recommendation .	132
Table 4.15 Construct Cross-Validated Redundancy	134
Table 4.16 Summary of Hypothesis testing	135

LIST OF FIGURES

Figure 3.1 Proposed Research Framework	90
Figure 4.1 Histogram and Normal Probability Plot	105
Figure 4.2 PLS Path Modelling Assessment (Two-Step Process)	114
Figure 4.3 Measurement Model	119
Figure 4.4 Structural Model	126



CHAPTER 1

INTRODUCTION

1.1 Background and Introduction of the Study

Globalisation and growth of economic markets signify that people are no longer constrained by national borders. This serves as opportunities for investors, especially in the field of financial security and instruments. Financial products include stocks, bonds, commodities, real estate and many different types of derivative instruments that vary according to their risks and their corresponding expected returns. Investors can choose investment opportunities from a large range of options that suit their preferences (Lim, 2013).

The stock exchange of a country reflects the status of its economy. In addition, it indicates the future performance of an economy. There are ample evidences of the links between the activities of the stock exchange and that of the economy (Barro, 1990; Fama, 1990; Fischer & Merton, 1984; Mullin & Wadhwani, 1989; Schwert, 1990).

Pakistan's 186 million population is the largest among frontier markets, and the sixth largest globally, following China, India, the US, Indonesia and Brazil. A 9% weight in the MSCI Frontier Markets Index ranks Pakistan third by weight, following Kuwait and Nigeria, making it the largest oil-importing country among other countries in the stock index. The Pakistani Stock Exchange (PSX), formally known as the Karachi Stock Exchange (KSE), was inaugurated on January 11, 2016, after integration of the trading platforms of the three former stock exchanges. As of April 12, 2016, there are 561 companies listed on the PSX, with a market capitalisation of PKR 6,992 billion

REFERENCES

- Abdallah, S., & Hilu, K. (2015). Exploring determinants to explain aspects of individual investors' financial behaviour. *Australasian Accounting, Business and Finance Journal*, 9(2), 4-22.
- Adel, B., & media, T. (2013). The impact of overconfidence on investors' decisions. *Business and Economic Research*, 3(2), 53-75.
- Agarwal, S. U. M. I. T. (2010). Consumer behavior in financial markets: Financial crisis and policy implications. *ISB Insight*, 8(2), 16-19.
- Aglietta, M., Alkire, S., Bourguignon, F., Clark, A. E., Deaton, A., & Senik, C. (2011). Measure for measure. How well do we measure development? Paper presented at the 8Th AFD-EUDN Conference, Paris.
- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In *Action control* (pp. 11-39). Springer, Berlin, Heidelberg.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Ajzen, I. (2002). Residual effects of past on later behavior: Habituation and reasoned action perspectives. *Personality and Social Psychology Review*, 6(2), 107-122.
- Ajzen, I. (2005). *Attitudes, personality, and behavior*. McGraw-Hill Education (UK).
- Ajzen, I. (2006). Constructing a theory of planned behavior questionnaire. Retrieved from [http:// people.umass.edu/aizen/pdf/tpb.measurement.pdf](http://people.umass.edu/aizen/pdf/tpb.measurement.pdf).
- Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behaviour. Englewood Cliffs, NJ: Prentice Hall.
- Alao, E. M., & Adebawojo, O. (2012). Risk and uncertainty in investment decisions: An overview. *Arabian Journal of Business and Management Review (OMAN Chapter)*, 2(4), 53-64.
- Alberti, R. E. (2013). The biological basis of human irrationality. In *Albert Ellis revisited* (pp. 123-143). Routledge.
- Ali, F., Shafeeq, N., & Ali, M. (2012). Limited stock investments in Pakistan. *International Journal of Business and Management*, 7(4), 133-144.

- Ali, I., & Tariq, A. (2013). Factors affecting individual equity investor's decision making in Pakistan. *Journal of Indonesian Economy and Business*, 1(1) 18-31.
- Ali, S., Zani, R. M., & Kasim, K. (2014). Factors Influencing Investors' Behavior in Islamic Unit Trust: An Application of Theory of Planned Behavior. *Journal of Islamic Economics, Banking and Finance*, 10(2), 183-201.
- Alias, N. (2008). *Driving salespeople's performance: the role of market orientation, organizational control, perceived organizational support, individual competence and individualism-collectivism* (Doctoral dissertation, University of Warwick).
- Alleyne, P., & Broome, T. (2011). Using the theory of planned behaviour and risk propensity to measure investment intentions among future investors. *Journal of Eastern Caribbean Studies*, 36(1), 1-21.
- Al-Swidi, A., Mohammed Rafiul Huque, S., Haroon Hafeez, M., & Noor Mohd Shariff, M. (2014). The role of subjective norms in theory of planned behavior in the context of organic food consumption. *British Food Journal*, 116(10), 1561-1580.
- Amirhosseini, Z., & Okere, V. O. (2012). Effect of cultural dimensions on stock exchange investment decisions in Iran. *Journal of Business & Economics Research (Online)*, 10(12), 681-688.
- Anagnosti, A., Zampetakis, L. A., & Rozakis, S. (2014, August). Understanding entrepreneurial intentions of students in agriculture and related sciences. In *2014 International Congress, August 26-29, 2014, Ljubljana, Slovenia* (No. 183047). European Association of Agricultural Economists.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423.
- Ang, J., Chua, A., & Jiang, D. (2010). Is A better than B? How affect influences the marketing and pricing of financial securities. *Financial Analysts Journal*, 66(6), 40-54.

- Angelovska, J. (2015). Macedonian small investors' behavior towards stock market. *Zagreb International Review of Economics and Business*, 18(1), 51-60.
- Antony, S., Lin, Z., & Xu, B. (2006). Determinants of escrow service adoption in consumer-to-consumer online auction market: An experimental study. *Decision Support Systems*, 42(3), 1889-1900.
- Aqueveque, C. (2006). Extrinsic cues and perceived risk: the influence of consumption situation. *Journal of Consumer Marketing*, 23(5), 237-247.
- Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology*, 40(4), 471-499.
- Arrow, K. J. (1998). The place of institutions in the economy: a theoretical perspective. In *The institutional foundations of East Asian economic development* (pp. 39-48). Palgrave Macmillan, London.
- Aspara, J. (2013). The role of product and brand perceptions in stock investing: Effects on investment considerations, optimism and confidence. *Journal of Behavioral Finance*, 14(3), 195-212.
- Aspara, J., & Tikkanen, H. (2008). Interactions of individuals' company-related attitudes and their buying of companies' stocks and products. *Journal of Behavioral Finance*, 9(2), 85-94.
- Aspara, J., & Tikkanen, H. (2011). Individuals' affect-based motivations to invest in stocks: Beyond expected financial returns and risks. *Journal of Behavioral Finance*, 12(2), 78-89.
- Aspara, J., Olkkonen, R., Tikkanen, H., Moisander, J., & Parvinen, P. (2008). A theory of affective self-affinity: Definitions and application to a company and its business. *Academy of Marketing Science Review*, 12 (3), 1-37.
- Bacon, D. R., Sauer, P. L., & Young, M. (1995). Composite reliability in structural equations modeling. *Educational and Psychological Measurement*, 55(3), 394-406.
- Badshah, W., Hakam, U., Khan, A. S., & Saud, S. (2014). Factors affecting short-term investment intentions of stock investors in Pakistan. *Management and Administrative Sciences Review*, 3(3), 464-469.

- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74-94.
- Bailey, J. J., & Kinerson, C. (2005). Regret avoidance and risk tolerance. *Financial Counseling and Planning*, 16(1), 23-28.
- Baker, J., Parasuraman, A., Grewal, D., & Voss, G. B. (2002). The influence of multiple store environment cues on perceived merchandise value and patronage intentions. *Journal of Marketing*, 66(2), 120-141.
- Baker, T. L., Hunt, J. B., & Scribner, L. L. (2002). The effect of introducing a new brand on consumer perceptions of current brand similarity: the roles of product knowledge and involvement. *Journal of Marketing Theory and Practice*, 10(4), 45-57.
- Barberis, N. C. (2013). Thirty years of prospect theory in economics: A review and assessment. *Journal of Economic Perspectives*, 27(1), 173-96.
- Barclay, D., Higgins, C., & Thompson, R. (1995). The partial least squares (PLS) approach to causal modeling: Personal computer adoption and use as an illustration. *Technology Studies*, 2(2), 285-309.
- Barnea, A., & Rubin, A. (2010). Corporate social responsibility as a conflict between shareholders. *Journal of Business Ethics*, 97(1), 71-86.
- Barnett, V., & Lewis, T. (1994). Outliers in statistical data (probability & mathematical statistics). John Wiley & Sons.
- Barro, R. J. (1990). The stock market and investment. *The Review of Financial Studies*, 3(1), 115-131.
- Barroso, C., Carrión, G. C., & Roldán, J. L. (2010). Applying maximum likelihood and PLS on different sample sizes: studies on SERVQUAL model and employee behavior model. In *Handbook of partial least squares* (pp. 427-447). Springer, Berlin, Heidelberg.
- Baruch, Y., & Holtom, B. C. (2008). Survey response rate levels and trends in organizational research. *Human Relations*, 61(8), 1139-1160.

- Bashir, M., & Nisar, A. (2013). Factors of short term investment decision making. *International Journal of Management & Organizational Studies*, 2(4), 5-9.
- Bayar, Y. (2011). Yatırımcı davranışlarının davranışçı yaklaşım çerçevesinde değerlendirilmesi. *Girişimcilik ve Kalkınma Dergisi*, 6(2), 133-160.
- Becker, J., & Flanegin, F. R. (2010). A comparative study: Value dimensions on investment decisions of college students in the United States and Australia. *Journal of Business and Educational Leadership*, 2(1), 71-82.
- Beckmann, D., Menkhoff, L., & Suto, M. (2008). Does culture influence asset managers' views and behavior?. *Journal of Economic Behavior & Organization*, 67(3-4), 624-643.
- Bei, L. T., & Widdows, R. (1999). Product knowledge and product involvement as moderators of the effects of information on purchase decisions: A case study using the perfect information frontier approach. *Journal of Consumer Affairs*, 33(1), 165-186.
- Benartzi, S., & Thaler, R. (1995). Myopic loss aversion and the equity premium puzzle. *Quarterly Journal of Economics*, 110(1), 73-92.
- Ben-David, I., Graham, J. R., & Harvey, C. R. (2007). *Managerial overconfidence and corporate policies* (No. w13711). National Bureau of Economic Research.
- Bennet, E., Selvam, M., Indhumathi, G., Ramkumar, R. R., & Karpagam, V. (2011). Factors influencing retail investors' attitude towards investing in equity stocks: a study in Tamil Nadu. *Journal of Modern Accounting and Auditing*, 7(3), 316-321.
- Benos, A. V. (1998). Aggressiveness and survival of overconfident traders. *Journal of Financial Markets*, 1(3-4), 353-383.
- Bentler, P. M., & Chou, C. P. (1987). Practical issues in structural modeling. *Sociological Methods & Research*, 16(1), 78-117.
- Bertaut, C. C. (1998). Stockholding behavior of US households: Evidence from the 1983-1989 survey of consumer finances. *Review of Economics and Statistics*, 80(2), 263-275.

- Bhatnagar, A., Misra, S., & Rao, H. R. (2000). On risk, convenience, and Internet shopping behavior. *Communications of the ACM*, 43(11), 98-105.
- Bijttebier, P., Delva, D., Vanoost, S., Bobbaers, H., Lauwers, P., & Vertommen, H. (2000). Reliability and validity of the critical care family needs inventory in a Dutch-speaking Belgian sample. *Heart & Lung: The Journal of Acute and Critical Care*, 29(4), 278-286.
- Black, B. S. (1992). Agents watching agents: The promise of institutional investor voice. *UCLA Law Review*, 39, 811-893.
- Black, F., & Scholes, M. (1973). The pricing of options and corporate liabilities. *Journal of Political Economy*, 81(3), 637-654.
- Blackwell, R. D., Miniard, P. W., & Engel, J. F. (2006). Consumer behavior. California: South-Western College.
- Blanchard, C., Fisher, J., Sparling, P., Nehl, E., Rhodes, R., Courneya, K., & Baker, F. (2008). Understanding physical activity behavior in African American and Caucasian college students: an application of the theory of planned behavior. *Journal of American College Health*, 56(4), 341-346.
- Blanchett, D., & Ratner, H. (2015). Building Efficient Income Portfolios. *Journal of Portfolio Management*, 41(3), 117-125.
- Bolton, L. E., Cohen, J. B., & Bloom, P. N. (2006). Does marketing products as remedies create “get out of jail free cards”? *Journal of Consumer Research*, 33(1), 71-81.
- Breuer, W., Riesener, M., & Salzmann, A. J. (2014). Risk aversion vs. individualism: what drives risk taking in household finance?. *The European Journal of Finance*, 20(5), 446-462.
- Brucks, M. (1985). The effects of product class knowledge on information search behavior. *Journal of Consumer Research*, 12 (1), 1-16.
- Bryman, A., & Bell, E. (2015). *Business research methods*. Oxford University Press, USA.
- Burrell, G., & Morgan, G. (1979). Social paradigms and organizational analysis. *Elements of the sociology of corporate life*. London: Heinemann.

- Büttner, O. B., & Göritz, A. S. (2008). Perceived trustworthiness of online shops. *Journal of Consumer Behaviour*, 7(1), 35-50.
- Byrne, B. M. (2016). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Routledge.
- Byrne, B. M., & Van de Vijver, F. J. (2010). Testing for measurement and structural equivalence in large-scale cross-cultural studies: Addressing the issue of nonequivalence. *International Journal of Testing*, 10(2), 107-132.
- Callaghan, W., Wilson, B., Ringle, C. M., & Henseler, J. (2007). Exploring causal path directionality for a marketing model: Using Cohen's path method. In *5th International Symposium on PLS and Related Methods*. PLS.
- Campbell, M. C., & Goodstein, R. C. (2001). The moderating effect of perceived risk on consumers' evaluations of product incongruity: Preference for the norm. *Journal of Consumer Research*, 28(3), 439-449.
- Carpenter, T. D., & Reimers, J. L. (2005). Unethical and fraudulent financial reporting: Applying the theory of planned behavior. *Journal of Business Ethics*, 60(2), 115-129.
- Chakravarti, A., & Janiszewski, C. (2003). The influence of macro-level motives on consideration set composition in novel purchase situations. *Journal of Consumer Research*, 30(2), 244-258.
- Chatterjee, S., & Yilmaz, M. (1992). A review of regression diagnostics for behavioral research. *Applied Psychological Measurement*, 16(3), 209-227.
- Chaudhary, A. K. (2013). Impact of behavioral finance in investment decisions and strategies—a fresh approach. *International Journal of Management Research and Business Strategy*, 2(2), 85-92.
- Chaudhuri, A. (2002). How brand reputation affects the advertising-brand equity link. *Journal of Advertising Research*, 42(3), 33-43.
- Chen, Y. S., & Chang, C. H. (2012). Enhance green purchase intentions: The roles of green perceived value, green perceived risk, and green trust. *Management Decision*, 50(3), 502-520.

- Chernick, M. R. (2008). *Bootstrap methods. A guide for practitioners and researchers* (2nd ed.). Hoboken, New Jersey: Wiley.
- Chin, W. W. (1998). Commentary: Issues and opinion on structural equation modeling. *MIS Quarterly*, 22 (1), 7-15.
- Chin, W. W. (2010). How to write up and report PLS analyses. In *Handbook of partial least squares* (pp. 655-690). Springer, Berlin, Heidelberg.
- Chiu, M. (2012). Derivatives markets, products and participants: an overview. *IFC Bulletins Chapters*, 35, 3-11.
- Cho, J., & Lee, J. (2006). An integrated model of risk and risk-reducing strategies. *Journal of Business Research*, 59(1), 112-120.
- Choe, H., Kho, B. C., & Stulz, R. M. (2005). Do domestic investors have an edge? The trading experience of foreign investors in Korea. *The Review of Financial Studies*, 18(3), 795-829.
- Christelis, D., Jappelli, T., & Padula, M. (2010). Cognitive abilities and portfolio choice. *European Economic Review*, 54(1), 18-38.
- Chua, Y. P. (2006). *Kaedah penyelidikan*. Shah Alam: McGraw-Hill Education.
- Chung, H., & Zhao, X. (2003). Humour effect on memory and attitude: moderating role of product involvement. *International Journal of Advertising*, 22(1), 117-144.
- Clark, E., Qiao, Z., & Wong, W. K. (2016). Theories of risk: Testing investor behavior on the Taiwan stock and stock index futures markets. *Economic Inquiry*, 54(2), 907-924.
- Clark-Murphy, M., & Soutar, G. N. (2004). What individual investors value: Some Australian evidence. *Journal of Economic Psychology*, 25(4), 539-555.
- Clemen, R. T. (1999). Does decision analysis work. *A research agenda. Manuscript available at: <http://faculty.fuqua.duke.edu/clemen/bio/Effective.pdf>*.
- Coaks, J. S., & Steed, G. L. (2001). *SPSS: Analysis without anguish: version 10.0 for Windows*. Brisbane: John Wiley. & Sons Australia, Ltd.
- Cohen, J. (1988). *Statistical power analysis for the behavioral science*. New Jersey: Lawrence, Erlbaum.

- Cole, S. A., & Shastry, G. K. (2009). *Smart money: The effect of education, cognitive ability, and financial literacy on financial market participation* (pp.9-71). Boston, MA: Harvard Business School.
- Cooper, D. R., & Schindler, P. S. (2006). *Business Research Methods*. New York: McGraw-Hill Irwin.
- Cronan, T. P., & Al-Rafee, S. (2008). Factors that influence the intention to pirate software and media. *Journal of Business Ethics*, 78(4), 527-545.
- Cuong, P. K., & Jian, Z. (2014). Factors influencing individual investors' behavior: An empirical study of the Vietnamese stock market. *American Journal of Business and Management*, 3(2), 77-94.
- Dai, B., Forsythe, S., & Kwon, W. S. (2014). The impact of online shopping experience on risk perceptions and online purchase intentions: does product category matter?. *Journal of Electronic Commerce Research*, 15(1), 13-24.
- Damghani, K. K., Taghavifard, M. T., & Moghaddam, R. T. (2009). Decision making under uncertain and risky situations. In *enterprise risk management symposium monograph society of actuaries-schaumburg, Illinois*.
- Daniel, K., Hirshleifer, D., & Subrahmanyam, A. (1998). Investor psychology and security market under-and overreactions. *The Journal of Finance*, 53(6), 1839-1885.
- Daniel, K., Hirshleifer, D., & Subrahmanyam, A. (1998). Investor overconfidence, covariance risk, and predictors of securities returns. *Journal of Finance*, 53, 1839-1886.
- Dayaratne, D. A., & Wijethunga, A. W. G. C. N. (2015). Impact of psychology on behavioural intention in investing in capital markets: A survey of Colombo Stock Exchange. *International Journal of Accounting & Business Finance*, 2, 37-45.
- De Bondt, W. F. (1998). A portrait of the individual investor. *European Economic Review*, 42(3), 831-844.
- De Bondt, W. F., & Thaler, R. H. (1995). Financial decision-making in markets and firms: A behavioral perspective. *Handbooks in Operations Research and Management Science*, 9, 385-410.

- De Bondt, W. F., Muradoglu, Y. G., Shefrin, H., & Staikouras, S. K. (2008). Behavioral finance: Quo vadis?. *Journal of Applied Finance (Formerly Financial Practice and Education)*, 18(2), 7-21.
- Dhar, R., & Zhu, N. (2006). Up close and personal: Investor sophistication and the disposition effect. *Management Science*, 52(5), 726-740.
- Diamantopoulos, A., Sarstedt, M., Fuchs, C., Wilczynski, P., & Kaiser, S. (2012). Guidelines for choosing between multi-item and single-item scales for construct measurement: a predictive validity perspective. *Journal of the Academy of Marketing Science*, 40(3), 434-449.
- Dijkstra, T. (1983). Some comments on maximum likelihood and partial least squares methods. *Journal of Econometrics*, 22(1), 67-90.
- Dilman, D. A. (1978). *Mail and telephone surveys* (Vol. 3). Wiley Interscience.
- Disatnik, D., & Steinhart, Y. (2015). Need for cognitive closure, risk aversion, uncertainty changes, and their effects on investment decisions. *Journal of Marketing Research*, 52(3), 349-359.
- Dodds, W. B., Monroe, K. B., & Grewal, D. (1991). Effects of price, brand, and store information on buyers' product evaluations. *Journal of Marketing Research*, 307-319.
- Dohmen, T., Falk, A., Huffman, D., Sunde, U., Schupp, J., & Wagner, G. G. (2011). Individual risk attitudes: Measurement, determinants, and behavioral consequences. *Journal of the European Economic Association*, 9(3), 522-550.
- Dong-Fei, X. U. E. (2015). Analyzing the relation between perceived risk and customer involvement: based on the bank financial products. *International Journal of Economics, Commerce and Management*, 3 (2), 1-7.
- Douglas, M., & Wildavsky, A. (1982). Risk and culture: An essay on the selection of technical and environmental dangers. Berkeley. Cal.: *University of California Press*.
- Dowling, G. R., & Staelin, R. (1994). A model of perceived risk and intended risk-handling activity. *Journal of Consumer Research*, 119-134.

- Dreman, D., Johnson, S., MacGregor, D., & Slovic, P. (2001). A report on the March 2001 investor sentiment survey. *The Journal of Psychology and Financial Markets*, 2(3), 126-134.
- Duarte, P. A. O., & Raposo, M. L. B. (2010). A PLS model to study brand preference: An application to the mobile phone market. In *Handbook of partial least squares* (pp. 449-485). Springer, Berlin, Heidelberg.
- Duclos, R., Wan, E. W., & Jiang, Y. (2013). Show me the honey! Effects of social exclusion on financial risk-taking. *Journal of Consumer Research*, 40(1), 122-135.
- East, R. (1993). Investment decisions and the theory of planned behaviour. *Journal of Economic Psychology*, 14(2), 337-375.
- Elliott, A. C., & Woodward, W. A. (2007). *Statistical analysis quick reference guidebook: With SPSS examples*. Sage.
- Engel, J. F., Blackwell, R. D., & Miniard, P. W. (1995). *Consumer behavior*, 8th. New York: Dryder.
- Enron (2010). Risk management. *The Review of Economic Studies*, 20 (2), 15-22.
- Eurosif. (2012). *HNWIs & sustainable investment 2012*. Brussels, Belgium: Eurosif. Retrieved from <http://www.eurosif.org>
- Falk, R. F., & Miller, N. B. (1992). *A primer for soft modeling*. University of Akron Press.
- Fama, E. F. (1990). Stock returns, expected returns, and real activity. *The Journal of Finance*, 45(4), 1089-1108.
- Fang, J., Shao, P., & Lan, G. (2009). Effects of innovativeness and trust on web survey participation. *Computers in Human Behavior*, 25(1), 144-152.
- Farrukh.K. (2010). Investment outlook: The case for equities. *Next Capital Research*, 1-6.
- Ferrer, G., & Whybark, D. C. (2000). From garbage to goods: Successful remanufacturing systems and skills. *Business Horizons*, 43(6), 55-64.
- Field, A. (2009). *Discovering statistics using SPSS: Sage publications*.

- Fischer, S., & Merton, R. C. (1984, December). Macroeconomics and finance: The role of the stock market. In *Carnegie-Rochester conference series on public policy* 21, 57-108. North-Holland.
- Fishbein, M., & Ajzen, I. (2011). *Predicting and changing behavior: The reasoned action approach*. Taylor & Francis.
- Franklin, S. C., & Corter, J. E. (2010). Risk aversion and uncertainty aversion as distinct traits. *Unpublished paper, Teachers College, Columbia University*.
- Friedman, H. (2007). Does overconfidence affect entrepreneurial investment?. *Wharton Research Scholars Journal*, 42, 1-31.
- Fu, J. R., Farn, C. K., & Chao, W. P. (2006). Acceptance of electronic tax filing: A study of taxpayer intentions. *Information & Management*, 43(1), 109-126.
- Gambetti, E., & Giusberti, F. (2012). The effect of anger and anxiety traits on investment decisions. *Journal of Economic Psychology*, 33(6), 1059-1069.
- Gazıoğlu, Ş., & Çalışkan, N. (2011). Cumulative prospect theory challenges traditional expected utility theory. *Applied Financial Economics*, 21(21), 1581-1586.
- Gefen, D., & Straub, D. (2005). A practical guide to factorial validity using PLS-Graph: Tutorial and annotated example. *Communications of the Association for Information systems*, 16(1), 91-110.
- Geisser, S. (1974). A predictive approach to the random effect model. *Biometrika*, 61(1), 101-107.
- Gervais, S., & Odean, T. (2001). Learning to be overconfident. *Review of Financial Studies*, 14(1), 1-27.
- Gervais, S., Heaton, J. B., & Odean, T. (2002). The positive role of overconfidence and optimism in investment policy. *Rodney L White Center for Financial Research-Working Papers*.
- Glaser, M., & Weber, M. (2007). Overconfidence and trading volume. *The Geneva Risk and Insurance Review*, 32(1), 1-36.

- González Mieres, C., María Díaz Martín, A., & Trespalacios Gutiérrez, J. A. (2006). Antecedents of the difference in perceived risk between store brands and national brands. *European Journal of Marketing*, 40(1/2), 61-82.
- Goodwin, P., & Wright, G. (1991). Decision analysis for management judgement. John Wiley & Sons.
- Gopalakrishnan, A., (2007), Investment world: Overconfidence and how to fix it. The Hindu business line. Available at <http://www.thehindubusinessline.com/features/investment-world/article2883234.ece>.
- Gopi, M., & Ramayah, T. (2007). Applicability of theory of planned behavior in predicting intention to trade online: Some evidence from a developing country. *International Journal of Emerging Markets*, 2(4), 348-360.
- Gorter, J., & Bikker, J. A. (2013). Investment risk taking by institutional investors. *Applied Economics*, 45(33), 4629-4640.
- Götz, O., Liehr-Gobbers, K., & Krafft, M. (2010). Evaluation of structural equation models using the partial least squares (PLS) approach. In *Handbook of partial least squares* (pp. 691-711). Springer Berlin Heidelberg.
- Goyal, A. (2008). Managing perceived risk for credit card purchase through supplementary services. *Journal of Financial Services Marketing*, 12(4), 331-345.
- Graham, J. R. (1999). Herding among investment newsletters: Theory and evidence. *The Journal of Finance*, 54(1), 237-268.
- Grether, D. M. (1980). Bayes rule as a descriptive model: The representativeness heuristic. *The Quarterly Journal of Economics*, 537-557.
- Grinblatt, M., & Keloharju, M. (2001). What makes investors trade?. *Journal of Finance*, 589-616.
- Grinblatt, M., & Keloharju, M. (2009). Sensation seeking, overconfidence, and trading activity. *Journal of Finance*, 64(2), 549-578.
- Grover, H., & Vernekar, S. S. (2015). Review on factors influencing investor's wealth management behavior. *The International Journal of Business & Management*, 3(4), 336-343.

- Gujarati, D. N. (2012). *Basic econometrics*. Tata McGraw-Hill Education.
- Gumussoy, C. A., & Calisir, F. (2009). Understanding factors affecting e-reverse auction use: An integrative approach. *Computers in Human Behavior*, 25(4), 975-988.
- Gunderson, M., Gloy, B., & Rodgers, C. (2009). The impact of board of director characteristics on Farm Credit Association performance: Regular Articles. *Agricultural Finance Review*, 69(2), 149-159.
- Hagan, D. L. (2008). *The role of self-efficacy in stock-market participation and financial information-seeking* (Doctoral dissertation, Cornell University).
- Hair Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage Publications.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis*. Upper Saddle River, NJ: Prentice-Hall.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (1998). *Multivariate data analysis*. Saddle River, NJ: Prentice hall.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis 6th ed. Uppersaddle River: Pearson Prentice Hall*.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139-152.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning*, 1(46), 1-12.
- Hair, J. F., Sarstedt, M., Pieper, T. M., & Ringle, C. M. (2012). The use of partial least squares structural equation modeling in strategic management research: a review of past practices and recommendations for future applications. *Long Range Planning*, 45(5-6), 320-340.
- Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40(3), 414-433.

- Hair, Sarstedt, Hopkins, & Kuppelwieser (2014). Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. *European Business Review*, 26(2), 106-121.
- Hallahan, T. A., Faff, R. W., & McKenzie, M. D. (2004). An empirical investigation of personal financial risk tolerance. *Financial Services Review-Greenwich*, 13(1), 57-78.
- Hamid, S. A. (2014). *Tax compliance behaviour of tax agents: a comparative study of Malaysia and New Zealand* (PhD Thesis, University of Canterbury, New Zealand).
- Harrison, T. (2003). Editorial: Understanding the behaviour of financial services consumers: A research agenda. *Journal of Financial Services Marketing*, 8(1), 6-10.
- Harrison, T. (Ed.). (2016). *Financial literacy and the limits of financial decision-making*. Springer.
- Hassan, S. A., & Hashmi, M. S. (2015). Terrorism and the response of investors at capital market: a case of Pakistan. *Pakistan Journal of Commerce and Social Sciences*, 9(1), 218-227.
- Hauser, W., & Lund, R. T. (2003). The remanufacturing industry: anatomy of a giant. *Department of Manufacturing Engineering, Boston University*.
- Hayward, M. L., Shepherd, D. A., & Griffin, D. (2006). A hubris theory of entrepreneurship. *Management Science*, 52(2), 160-172.
- Henderson, J., & Cool, K. (2006). Overcoming risk avoidance through the size and depth of experience: Top management tenure and investment timing decisions. Available at https://193.5.22.214/research/publications/upload/Henderson_Cool_WP_2006_07.pdf.
- Henseler, J., & Sarstedt, M. (2013). Goodness-of-fit indices for partial least squares path modeling. *Computational Statistics*, 28(2), 565-580.
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In *New challenges to international marketing* (pp. 277-319). Emerald Group Publishing Limited.

- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modelling. *Journal of the academy of marketing science*, 43 (1), 115-135.
- Hilton, D., Regner, I., Cabantous, L., Charalambides, L., & Vautier, S. (2011). Do positive illusions predict overconfidence in judgment? A test using interval production and probability evaluation measures of miscalibration. *Journal of Behavioral Decision Making*, 24(2), 117-139.
- Hirshleifer, D. (2015). Behavioral finance. *Annual Review of Financial Economics*, 7, 133-159.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. Sage publications.
- Hofstede, G. H., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: software of the mind intercultural cooperation and its importance for survival*. New York: McGraw-Hill.
- Holtom, B. C., Mitchell, T. R., Lee, T. W., & Eberly, M. B. (2008). 5 turnover and retention research: a glance at the past, a closer review of the present, and a venture into the future. *Academy of Management Annals*, 2(1), 231-274.
- Hong, H., Kubik, J. D., & Stein, J. C. (2004). Social interaction and stock-market participation. *The Journal of Finance*, 59(1), 137-163.
- Hoover, R. J., Green, R. T., & Saegert, J. (1978). A cross-national study of perceived risk. *The Journal of Marketing*, 42 (3), 102-108.
- Howard, R. A. (1968). The foundations of decision analysis. *IEEE Transactions on Systems Science and Cybernetics*, 4(3), 211-219.
- Howcroft, B., Hower, P., & Hamilton, R. (2003). Consumer decision-making styles and the purchase of financial services. *Service Industries Journal*, 23(3), 63-81.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55.

- Huang, X., Zhang, M., Hui, M. K., & Wyer, R. S. (2014). Warmth and conformity: The effects of ambient temperature on product preferences and financial decisions. *Journal of Consumer Psychology*, 24(2), 241–250.
- Huberman, G. (2001). Familiarity breeds investment. *Review of Financial Studies*, 14(3), 659–680.
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, 20(2), 195-204.
- Huhmann, B. A., & Bhattacharyya, N. (2005). Does mutual fund advertising provide necessary investment information?. *International Journal of Bank Marketing*, 23(4), 296-316.
- Hung, M. W., & Wang, J. Y. (2005). Asset prices under prospect theory and habit formation. *Review of Pacific Basin Financial Markets and Policies*, 8(01), 1-29.
- Husain, F. (2016). A study of investment decisions by individual investors. *International Journal of Scientific Research*, 4(9), 63-74.
- Huy Tuu, H., Ottar Olsen, S., & Thi Thuy Linh, P. (2011). The moderator effects of perceived risk, objective knowledge and certainty in the satisfaction-loyalty relationship. *Journal of Consumer Marketing*, 28(5), 363-375.
- Iqbal, S., Hussain, N., Latif, M., & Aslam, S. (2013). Investor type and financial market anomalies: A comparison of individual, institutional and foreign investors and role of their behaviors in investing decisions. *Middle-East Journal of Scientific Research*, 17(11), 1591-1596.
- Islam, S. (2012). Behavioral finance of an inefficient market. *Global Journal of Management and Business Research*, 12(14), 13-34.
- İslamoğlu, M., Apan, M., & Ayvalı, A. (2015). Determination of factors affecting individual investor behaviours: A study on bankers. *International Journal of Economics and Financial Issues*, 5(2), 531-543.
- Ismail, S., & Mokhtar, S. S. M. (2016). Linking attitude to actual purchase of herbal product in Malaysia: The moderating role of perceived risk. *Journal of Asian Business Strategy*, 6(2), 22-30.

- Jimmieson, N. L., Peach, M., & White, K. M. (2008). Utilizing the theory of planned behavior to inform change management: An investigation of employee intentions to support organizational change. *The Journal of Applied Behavioral Science*, 44(2), 237-262.
- Jobber, D. (1989). An examination of the effects of questionnaire factors on response to an industrial mail survey. *International Journal of Research in Marketing*, 6(2), 129-140.
- Johnson, E. J., & Tversky, A. (1983). Affect, generalization, and the perception of risk. *Journal of Personality and Social Psychology*, 45(1), 20-31.
- Josiassen, A., Lukas, B. A., & Whitwell, G. J. (2008). Country-of-origin contingencies: Competing perspectives on product familiarity and product involvement. *International Marketing Review*, 25(4), 423-440.
- Kabra, G., Mishra, P. K., & Dash, M. K. (2010). Factors influencing investment decision of generations in India: an econometric study. *The Asian Journal of Management Research*. 308-326.
- Kahneman, D. (2003). A perspective on judgment and choice: mapping bounded rationality. *American Psychologist*, 58(9), 1449-1475.
- Kahneman, D. (2011). Thinking fast and slow. *Allen Lane, New York, USA*.
- Kahneman, D., & Tversky, A. (1973). On the psychology of prediction. *Psychological Review*, 80(4), 237-251.
- Kahneman, D., & Tversky, A. (1974). Subjective probability: A judgment of representativeness. In *The Concept of Probability in Psychological Experiments* (pp. 25-48). Springer Netherlands.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47, 263-291.
- Karlan, D., Ratan, A. L., & Zinman, J. (2014). Savings by and for the Poor: A Research Review and Agenda. *Review of Income and Wealth*, 60(1), 36-78.
- Kashif, M., Zarkada, A., & Ramayah, T. (2018). The impact of attitude, subjective norms, and perceived behavioural control on managers' intentions to behave

- ethically. *Total Quality Management & Business Excellence*, 29(5-6), 481-501.
- Keller, C., & Siegrist, M. (2006). Investing in stocks: The influence of financial risk attitude and values-related money and stock market attitudes. *Journal of Economic Psychology*, 27(2), 285-303.
- Kengatharan, L., & Kengatharan, N. (2014). The Influence of Behavioral Factors in Making Investment Decisions and Performance: Study on Investors of Colombo Stock Exchange, Sri Lanka. *Asian Journal of Finance & Accounting*, 6(1), 1-23.
- Kerlinger, F. N. (1986). Foundations of behavioral science. *New York: Holt, Rinehart, and Winston*.
- Kim, D. J., Ferrin, D. L., & Rao, H. R. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision Support Systems*, 44(2), 544-564.
- Kimani, V. W. (2011). *A survey of behavioral factors influencing individual investors' choices of securities at the Nairobi Securities Exchange* (Doctoral Dissertation, University of Nairobi, Kenya).
- King, J. E. (Ed.). (2012). *An alternative macroeconomic theory: The Kaleckian model and post-Keynesian economics*, 49(1), Springer Science & Business Media.
- Kiriakidis, S. (2015). Theory of planned behaviour: The intention-behaviour relationship and the perceived behavioural control (PBC) relationship with intention and behaviour. *International Journal of Strategic Innovative Marketing*, 3(2), 40-51.
- Kliger, D., & Kudryavtsev, A. (2008). Reference point formation by market investors. *Journal of Banking & Finance*, 32(9), 1782-1794.
- Knabe, A. (2012). Applying Ajzen's theory of planned behavior to a study of online course adoption in public relations education. (Doctoral Dissertation, Marquette University, USA).
- Knight, R. L. (1948). The role of major genes in the evolution of economic characters. *Journal of Genetics*, 48(3), 370-387.

- Knoll, M. A. (2010). The role of behavioral economics and behavioral decision making in Americans' retirement savings decisions. *Social Security Bulletin*, 70 (4), 1-23.
- Koleczko, K. (2012). Risk and uncertainty in project management decision-making. *Public Infrastructure Bulletin*, 1(8), 76-83.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607-610.
- Krishnan, R., & Booker, D. M. (2002). Investors' use of analysts' recommendations. *Behavioral Research in Accounting*, 14(1), 129-156.
- Kumar, P. (2015). *Antecedents and consequences of female consumer's attitude and lifestyle in facial care market* (Doctoral dissertation, Universiti Utara Malaysia).
- Kuo, W. Y., & Lin, T. C. (2013). Overconfident individual day traders: Evidence from the Taiwan futures market. *Journal of Banking & Finance*, 37(9), 3548-3561.
- Langer, E. J., & Roth, J. (1975). Heads I win, tails it's chance: The illusion of control as a function of the sequence of outcomes in a purely chance task. *Journal of Personality and Social Psychology*, 32(6), 951-955.
- Larkin, J., McDermott, J., Simon, D. P., & Simon, H. A. (1980). Expert and novice performance in solving physics problems. *Science*, 208(4450), 1335-1342.
- Laroche, M., Bergeron, J., & Goutaland, C. (2003). How intangibility affects perceived risk: the moderating role of knowledge and involvement. *Journal of Services Marketing*, 17(2), 122-140.
- Laroche, M., Vinhal Nepomuceno, M., & Richard, M. O. (2010). How do involvement and product knowledge affect the relationship between intangibility and perceived risk for brands and product categories?. *Journal of Consumer Marketing*, 27(3), 197-210.
- Laurent, G., & Kapferer, J. N. (1985). Measuring consumer involvement profiles. *Journal of Marketing Research*, 41-53.

- Lee-Partridge, J. E., & Ho, P. S. (2003, January). A retail investor's perspective on the acceptance of Internet stock trading. In *System Sciences, 2003. Proceedings of the 36th Annual Hawaii International Conference on* (pp. 11-pp). IEEE.
- Lewis-Beck, M., Bryman, A. E., & Liao, T. F. (2003). *The Sage encyclopedia of social science research methods*. Sage Publications.
- Lim, K. L. (2013). *Investment intentions: A consumer behaviour framework* (Doctoral dissertation, University of Western Australia).
- Lim, K. L., Soutar, G. N., & Lee, J. A. (2013). Factors affecting investment intentions: A consumer behaviour perspective. *Journal of Financial Services Marketing, 18*(4), 301-315.
- Lin, H. F. (2007). Predicting consumer intentions to shop online: An empirical test of competing theories. *Electronic Commerce Research and Applications, 6*(4), 433-442.
- Lin, H. F. (2010). Applicability of the extended theory of planned behavior in predicting job seeker intentions to use job-search websites. *International Journal of Selection and Assessment, 18*(1), 64-74.
- Lin, L. Y., & Chen, C. S. (2006). The influence of the country-of-origin image, product knowledge and product involvement on consumer purchase decisions: an empirical study of insurance and catering services in Taiwan. *Journal of Consumer Marketing, 23*(5), 248-265.
- Liñán, F., & Chen, Y. W. (2009). Development and Cross-Cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship Theory and Practice, 33*(3), 593-617.
- Liu, T. L. (2010). Moderating influence of perceived risk on relationships between extrinsic cues and behavioral intentions. *Journal of Global Business Management, 6*(2), 1-15.
- Loewenstein, G. (2000). Emotions in economic theory and economic behavior. *American Economic Review, 90*(2), 426-432.
- Mahastanti, L. A., & Hariady, E. (2014). Determining the factors which affect the stock investment decisions of potential female investors in

- Indonesia. *International Journal of Process Management and Benchmarking*, 4(2), 186-197.
- Malhotra, N. K. (2008). *Marketing research: An applied orientation*, 5/e. Pearson Education India.
- Marija J. Norušis, & SPSS Inc. (1997). *SPSS 7.5 guide to data analysis*. Prentice Hall.
- Markowitz, H. (1952). Portfolio selection. *The Journal of Finance*, 7(1), 77-91.
- Martinez-Correa, J. (2012). Decisions under risk, uncertainty and ambiguity: theory and experiments. Dissertation, Georgia State University).
- Mayfield, C., Perdue, G., & Wooten, K. (2008). Investment management and personality type. *Financial Services Review*, 17(3), 219-236.
- McCrae, R. R., Kurtz, J. E., Yamagata, S., & Terracciano, A. (2011). Internal consistency, retest reliability, and their implications for personality scale validity. *Personality and Social Psychology Review*, 15(1), 28-50.
- McMillan, B., & Conner, M. (2003). Using the theory of planned behaviour to understand alcohol and tobacco use in students. *Psychology, Health & Medicine*, 8(3), 317-328.
- Merikas, A. A., Merikas, A. G., Vozikis, G. S., & Prasad, D. (2004). Economic factors and individual investor behavior: The case of the Greek stock exchange. *Journal of Applied Business Research*, 20(4), 93-98.
- Michaelidou, N., & Dibb, S. (2006). Product involvement: an application in clothing. *Journal of Consumer Behaviour*, 5(5), 442-453.
- Mishra, S. K., & Kumar, M. (2011). How product importance perception, need for cognition and enduring involvement influence investors' knowledge of investment products?. *Journal of Modern Accounting and Auditing*, 7(9), 920-933.
- Mitchell, V. W. (1999). Consumer perceived risk: conceptualisations and models. *European Journal of Marketing*, 33(1/2), 163-195.
- Mitra, K., Reiss, M. C., & Capella, L. M. (1999). An examination of perceived risk, information search and behavioral intentions in search, experience and credence services. *Journal of Services Marketing*, 13(3), 208-228.

- Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review*, 261-297.
- Moeini, K. A. (2012). Investor psychology: a study of investors' overconfidence in Dubai financial market, UAE (Master's thesis, Faculty of Business, UAE).
- Mohan, S. R., & Bhuvanam, S. (2015). A study of modelling investors behaviour towards online share trading, Coimbatore. *International Journal of Marketing and Human Resource Management*, 6(1), 44-54.
- Morse, W. C. (1998). Risk taking in personal investments. *Journal of Business and Psychology*, 13(2), 281-288.
- Mouna, A., & Anis, J. (2015). The factors forming investor's failure: Is financial literacy a matter? Viewing test by cognitive mapping technique. *Cogent Economics & Finance*, 3(1), 1057923.
- Mueller, A., & Brettel, M. (2012). Impact of biased pecking order preferences on firm success in real business cycles. *Journal of Behavioral Finance*, 13(3), 199-213.
- Mullins, M., & Wadhwani, S. B. (1989). The effect of the stock market on investment: A comparative study. *European Economic Review*, 33(5), 939-956.
- Nofsinger, J. R. (2011). *The psychology of investing*. Prentice Hall.
- Norusis, M. J. (1985). *Advance statistics guide: SPSS X*: McGraw-Hill, New York, NY.
- Nunnally, J. C., & Bernstein, I. H. (1994). The assessment of reliability. *Psychometric Theory*, 3(1), 248-292.
- O'Connor, R. C., & Armitage, C. J. (2003). Theory of planned behaviour and parasuicide: An exploratory study. *Current Psychology*, 22(3), 196-205.
- Obamuyi, T. M. (2013). Factors influencing investment decisions in capital market: A study of individual investors in Nigeria. *Organizations and Markets in Emerging Economies*, 4(1), 141-161.
- Odean, T. (1998). Volume, volatility, price, and profit when all traders are above average. *The Journal of Finance*, 53(6), 1887-1934.

- Park, J., Konana, P., Gu, B., Kumar, A., & Raghunathan, R. (2010). Confirmation bias, overconfidence, and investment performance: Evidence from stock message boards. *McCombs Research Paper Series No. IROM-07-10*. Available at SSRN: <https://ssrn.com/abstract=1639470>.
- Park, S. C., & Keil, M. (2017). The moderating effects of product involvement on escalation behavior. *Journal of Computer Information Systems*, 1-15.
- Parkash, R., Awais, M., & Warraich, U. A. (2014). Do socio-economic factors really influence risk taking behavior of individual investors?. *Research Journal of Management Sciences*, 3(6), 10-13.
- Pascual-Ezama, D., Scandroglio, B., & Gil-Gomez de Liaño, B. (2014). Can we predict individual investors' behavior in stock markets? A psychological approach. *Universitas Psychologica*, 13(1), 25-35.
- Peng, D. X., & Lai, F. (2012). Using partial least squares in operations management research: A practical guideline and summary of past research. *Journal of Operations Management*, 30(6), 467-480.
- Peterson, R. A., & Kim, Y. (2013). On the relationship between coefficient alpha and composite reliability. *Journal of Applied Psychology*, 98(1), 194-198.
- Phan, C. K., & Zhou, J. (2014). Vietnamese individual investors' behavior in the stock market: An exploratory study. *Research Journal of Social Science & Management*, 3(12), 46-54.
- Phuoc Luong, L., & Thi Thu Ha, D. (2011). *Behavioral factors influencing individual investors' decision-making and performance. A survey at the Ho Chi Minh Stock Exchange* (Unpublished M. Sc. Thesis, Umea School of Business).
- Pohja, T. L. (2009, April). Searching for the entrepreneur—the role of social norms among entrepreneurs. In *4th EDP Workshop* (pp. 2-3).
- Quintal, V. A., Lee, J. A., & Soutar, G. N. (2010). Risk, uncertainty and the theory of planned behavior: A tourism example. *Tourism Management*, 31(6), 797-805.
- Quintal, V., Lee, J., & Soutar, G. (2006). Attitudes towards risk and uncertainty: suggested scales. *Proceedings of the Australian and New Zealand Marketing Academy*, 4.

- Quintal, V., Lee, J., & Soutar, G. (2008). How risk and uncertainty perceptions affect travel decisions to Australia. *Proceedings of the CAUTHE 2008 Conference* [<http://www.griffith.edu.au/conference/cauthe2008/working-papers/WP051.pdf>].
- Raiffa, H. (1968). Decision analysis: introductory lectures on choices under uncertainty. Oxford, England: Addison-Wesley Decision analysis: introductory lectures on choices under uncertainty.
- Raiffa, H., & Schlaifer, R. (1961). Applied decision theory. *Boston: Division of Research, Harvard Business School*.
- Ramayah, T., May, O. S., & Omar, A. (2008). Behavioral determinants of online banking adoption: Some evidence from a multicultural society. *Journal of Management*, 2(3), 29-37.
- Ramayah, T., Yusoff, Y. M., Jamaludin, N., & Ibrahim, A. (2009). Applying the theory of planned behavior (TPB) to predict internet tax filing intentions. *International Journal of Management*, 26(2), 272-284.
- Rao, A. R., & Monroe, K. B. (1988). The moderating effect of prior knowledge on cue utilization in product evaluations. *Journal of Consumer Research*, 253-264.
- Raut, R. K., & Das, N. (2015). Behavioral prospects of individual investor decision making process: A review. *Indian Journal of Finance*, 9(4), 44-55.
- Raykov, T. (1998). Coefficient alpha and composite reliability with interrelated nonhomogeneous items. *Applied Psychological Measurement*, 22(4), 375-385.
- Reinartz, W., Haenlein, M., & Henseler, J. (2009). An empirical comparison of the efficacy of covariance-based and variance-based SEM. *International Journal of Research in Marketing*, 26(4), 332-344.
- Rekik, Y. M., & Boujelbene, Y. (2013). Determinants of individual investors' behaviors: Evidence from Tunisian stock market. *IOSR Journal of Business and Management*, 8(2), 109-119.
- Ricciardi, V. (2008). The psychology of risk: The behavioral finance perspective. *Handbook of Finance*.

- Richins, M. L., & Bloch, P. H. (1986). After the new wears off: The temporal context of product involvement. *Journal of Consumer Research*, 13(2), 280-285.
- Ringle, C. M., Sarstedt, M., & Straub, D. (2012a). A critical look at the use of PLS-SEM in MIS Quarterly. *MIS Quarterly*, 36(1), iii-xiv.
- Ritter, J. R. (2003). Behavioral finance. *Pacific-Basin Finance Journal*, 11(4), 429-437.
- Rizvi, A., & Ali, S. B. (2011). *Risk taking behavior of investors of Pakistan* (No. 64342). University Library of Munich, Germany.
- Sadiq, M., Khan, S. U. R., & Bajuri, N. H. (2013). Investors' investing activity: A behavioral perspective and empirical results from Pakistan. *Journal of Next Generation Information Technology*, 4(7).
- Satti, S. L., Uddin, S., & Ali, N. (2013). Investor knowledge, risk aversion, and investment decision. *Актуальні Проблеми Економіки*, (8), 380-389.
- Sattler, H., Völckner, F., Riediger, C., & Ringle, C. M. (2010). The impact of brand extension success drivers on brand extension price premiums. *International Journal of Research in Marketing*, 27(4), 319-328.
- Schafer, J. L. (1999). Multiple imputation: a primer. *Statistical Methods in Medical Research*, 8(1), 3-15.
- Schmidt, N. (2010). What drives investments into mutual funds? Applying the theory of planned behaviour to individuals' willingness and intention to purchase mutual funds. In *Conference Proceeding*. Retrieved from <http://retailinvestmentconference.org>.
- Schneider, H. L., & Lappen, A. A. (2000). Behavioral finance: Old wine in a new bottle. *The Journal of Wealth Management*, 3(2), 9-14.
- Schwert, G. W. (1990). Stock returns and real activity: A century of evidence. *The Journal of Finance*, 45(4), 1237-1257.
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.

- Selya, A. S., Rose, J. S., Dierker, L. C., Hedeker, D., & Mermelstein, R. J. (2012). A practical guide to calculating Cohen's f^2 , a measure of local effect size, from PROC MIXED. *Frontiers in Psychology*, 3, 1-6.
- Shafi, M. (2014). Determinants influencing individual investor behaviour in stock market: A cross country research survey. *Arabian Journal of Business and Management Review*, 2(1), 60-71.
- Shanmugham, R., & Ramya, K. (2012). Impact of social factors on individual investors' trading behaviour. *Procedia Economics and Finance*, 2, 237-246.
- Shaver, D. (2007). Impact of the internet on consumer information search behavior in the United States. *Journal of Media Business Studies*, 4(2), 27-39.
- Shefrin, H. (2002). *Beyond greed and fear: Understanding behavioral finance and the psychology of investing*. Oxford University Press on Demand.
- Shefrin, H. (2007). Behavioral finance: biases, mean-variance returns, and risk premiums. In *CFA Institute Conference Proceedings Quarterly*, 24 (2), 4-12. CFA Institute.
- Shefrin, H., & Statman, M. (1985). The disposition to sell winners too early and ride losers too long: Theory and evidence. *Journal of Finance*, 777-790.
- Shefrin, H., & Statman, M. (1993). Behavioral aspects of the design and marketing of financial products. *Financial Management*, 22 (2), 123-134.
- Shehryar, O., & Hunt, D. M. (2005). Buyer behavior and procedural fairness in pricing: exploring the moderating role of product familiarity. *Journal of Product & Brand Management*, 14(4), 271-276.
- Shirin, K., & Kambiz, H. H. (2011). The effect of the country-of-origin image, product knowledge and product involvement on consumer purchase decisions. *Chinese Business Review*, 10(8), 601-615.
- Shleifer, A. (2000). *Inefficient markets: An introduction to behavioral finance*. Oxford university press.
- Shyu, J., & Sun, H. M. (2010). Do institutional investors herd in emerging markets? Evidence from the Taiwan stock market. *Asian Journal of Finance & Accounting*, 2(2), 1-19.

- Siau, K., & Shen, Z. (2003). Building customer trust in mobile commerce. *Communications of the ACM*, 46(4), 91-94.
- Sindhu K. P., & Rajitha. K.S. (2014). Influence of risk perception of investors on investment decisions: An empirical analysis. *Journal of Finance and Bank Management*, 2(2), 15-25.
- Smith, M. J. (1998). *Social science in question: towards a postdisciplinary framework*. Sage.
- Soderlund, M., & Ohman, N. (2003). Behavioral intentions in satisfaction research revisited. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 16(1), 53-66.
- Sommer, L. (2011). The theory of planned behaviour and the impact of past behaviour. *The International Business & Economics Research Journal*, 10(1), 91-110.
- Sönmez, T. (2010). Davranışsal Finans Yaklaşımı: İMKB’de Aşırı Tepki Hipotezi Üzerine Bir Araştırma. *Yayınlanmamış Doktora Tezi, Ankara*, 2.
- Southey, G. (2011). The theories of reasoned action and planned behaviour applied to business decisions: a selective annotated bibliography. *Journal of New Business Ideas & Trends*, 9(1), 43-50.
- Statman, M. (2014). Behavioral finance: Finance with normal people. *Borsa Istanbul Review*, 14(2), 65-73.
- Statman, M., Fisher, K.L., & Anginer, D. (2008). Affect in a behavioral asset pricing model. *Financial Analysts Journal*, 64, 20-9.
- Stone, M. (1974). Cross-validatory choice and assessment of statistical predictions. *Journal of the Royal Statistical Society. Series B (Methodological)*, 36 (2), 111-147.
- Stone, R. N., & Grønhaug, K. (1993). Perceived risk: Further considerations for the marketing discipline. *European Journal of Marketing*, 27(3), 39-50.
- Strassl, W. (1986). Keynes on expectations and uncertainty: Rational expectations equilibria with asymmetric information. *Bulletin of Economic Research*, 38(2), 137-159.

- Sudarsono, M. C. S. R. (2015). Using theory of planned behavior in predicting intention to invest: Case of Indonesia. *International Academic Research Journal of Business and Technology*, 1 (2), 137-141.
- Sultana, S. T. (2010). An empirical study of Indian individual investors' behavior. *Global Journal of Finance and Management*, 2(1), 19-33.
- Sultana, S. T., & Pardhasaradhi, S. (2012). An empirical analysis of factors influencing Indian individual equity investors' decision making and behavior. *European Journal of Business and Management*, 4(18), 50-61.
- Sun, W., Chou, C. P., Stacy, A. W., Ma, H., Unger, J., & Gallaher, P. (2007). SAS and SPSS macros to calculate standardized Cronbach's alpha using the upper bound of the phi coefficient for dichotomous items. *Behavior Research Methods*, 39(1), 71-81.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics*. Allyn & Bacon/Pearson Education.
- Talha, N. U. M., Ali, I., & Waheed, M. S. (2012). The influence of stock attributes on individual equity investor's behavior. *Актуальні Проблеми Економіки*, 6 (1), 467-474.
- Tanaka, J. S. (1987). "How big is big enough?": Sample size and goodness of fit in structural equation models with latent variables. *Child development*, 58 (1), 134-146.
- Tanner, J., & Raymond, M. A. (2010). Low-Involvement versus high-involvement buying decisions and the consumer's decision-making process. *Marketing Principles*.
- Tavakoli, M. R., Habibi T.F., & Halid, N. (2011). A study on small investors' behavior in choosing stock case study: Kuala-Lumpur stock market. *African Journal of Business Management*, 5(27), 11082-11092.
- Taylor, S., & Todd, P. A. (1995). Understanding information technology usage: A test of competing models. *Information Systems Research*, 6(2), 144-176.
- Teo, T. S., & Pok, S. H. (2003). Adoption of WAP-enabled mobile phones among Internet users. *Omega*, 31(6), 483-498.

- Thaler, R. (1980). Toward a positive theory of consumer choice. *Journal of Economic Behavior & Organization*, 1(1), 39-60.
- Thaler, R. (1985). Mental accounting and consumer choice. *Marketing science*, 4(3), 199-214.
- Thaler, R. H. (1999). Mental accounting matters. *Journal of Behavioral Decision Making*, 12(3), 183-206.
- Thaler, R. H., & Johnson, E. J. (1990). Gambling with the house money and trying to break even: The effects of prior outcomes on risky choice. *Management science*, 36(6), 643-660.
- The Gallup Organisation (2009). *Europeans' attitudes towards the issue of sustainable consumption and production*. Retrieved from ec. europa. eu/public_opinion/flash/fl_256_en. pdf.
- Thorn, B. K., & Rogerson, P. (2002). Take it back: Remanufacturing is a viable alternative to disposal of products that have outlived their usefulness-but only if engineers can unearth sound economic justifications. *IIE Solutions*, 34(4), 34-40.
- Ton, H. T. H., & Dao, T. K. (2014). The effects of psychology on individual investors' behaviors: Evidence from the Vietnam stock exchange. *Journal of Management and Sustainability*, 4(3), 125-134.
- Traylor, M. B., & Joseph, W. B. (1984). Measuring consumer involvement in products: developing a general scale. *Psychology & Marketing*, 1(2), 65-77.
- Tufan, C., & Sariçiçek, R. (2013). Behavioral finance models, efficient market hypothesis and an assessment of its anomalies. *Trakya University Journal of Social Science*, 15(2), 159-182.
- Tuyon, J., & Ahmad, Z. (2018). Psychoanalysis of investor irrationality and dynamism in stock market. *Journal of Interdisciplinary Economics*, 30(1), 1-31.
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185(4157), 1124-1131.
- Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science*, 211(4481), 453-458.

- Tversky, A., & Kahneman, D. (1986). Rational choice and the framing of decisions. *Journal of business*, 59 (4), 251-278.
- Tyagi, A. K., & Agarwal, P. K. (2012). A study online buying behaviour Indian context. *International Journal of Management Research and Reviews*, 2(6), 1013- 1027.
- Umrani, W. A. (2016). *Moderating effect of organizational culture on the relationship between corporate entrepreneurship and business performance in Pakistan's banking sector* (Doctoral dissertation, Universiti Utara Malaysia).
- Van Dam, K., Van der Vorst, J. D., & Van der Heijden, B. I. (2009). Employees' intentions to retire early: A case of planned behavior and anticipated work conditions. *Journal of Career Development*, 35(3), 265-289.
- Van Hooft, E. A., & De Jong, M. (2009). Predicting job seeking for temporary employment using the theory of planned behaviour: The moderating role of individualism and collectivism. *Journal of Occupational and Organizational Psychology*, 82(2), 295-316.
- Van Rooij, M., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial Economics*, 101(2), 449-472.
- Varian, H. R. (1989). Differences of opinion in financial markets. In *financial Risk: Theory, Evidence and implications* (pp. 3-37). Springer Netherlands.
- Vehkalahti, K., Puntanen, S., & Tarkkonen, L. (2006). *Estimation of reliability: a better alternative for Cronbach's alpha*. Helsinki: Department of Mathematics and Statistics, University of Helsinki.
- Verardi, V., & Croux, C. (2009). Robust regression in Stata. *The Stata Journal*, 9(3), 439-453.
- Vijayasathy, L. R., & Jones, J. M. (2000). Print and Internet catalog shopping: assessing attitudes and intentions. *Internet Research*, 10(3), 191-202.
- Wakker, P. P. (2010). *Prospect theory: For risk and ambiguity*. Cambridge University Press.
- Wang, F. A. (1998). Strategic trading, asymmetric information and heterogeneous prior beliefs. *Journal of Financial Markets*, 1(3), 321-352.

- Weber, E. U., & Bottom, W. P. (1989). Axiomatic measures of perceived risk: Some tests and extensions. *Journal of Behavioral Decision Making*, 2(2), 113-131.
- Wetzels, M., Odekerken-Schröder, G., & Van Oppen, C. (2009). Using PLS path modeling for assessing hierarchical construct models: Guidelines and empirical illustration. *MIS quarterly*, 33 (1), 177-195.
- Wins, A., & Zwergel, B. (2016). Comparing those who do, might and will not invest in sustainable funds: a survey among German retail fund investors. *Business Research*, 9(1), 51-99.
- Wong, K. K. K. (2013). Partial least squares structural equation modeling (PLS-SEM) techniques using SmartPLS. *Marketing Bulletin*, 24(1), 1-32.
- Wulf, K. D., Odekerken-Schröder, G., & Iacobucci, D. (2001). Investments in consumer relationships: A cross-country and cross-industry exploration. *Journal of Marketing*, 65(4), 33-50.
- Xiao, J. J., & Wu, J. (2006). Applying the theory of planned behavior to retain credit counseling clients. <https://dx.doi.org/10.2139/ssrn.939437>.
- Yan, D., & Duclos, R. (2013). Making sense of numbers: Effects of alphanumeric brands on consumer inference. *International Journal of Research in Marketing*, 30(2), 179–184.
- Yasir, M. (2015). Attitude of Pakistan's individual investor towards risk during bull and bear markets. *VFAST Transactions on Education and Social Sciences*, 5(2), 27-39.
- Yates, J. F., Lee, J. W., & Bush, J. G. (1997). General knowledge overconfidence: cross-national variations, response style, and "reality". *Organizational Behavior and Human Decision Processes*, 70(2), 87-94.
- Yee, C. J., & San, N. C. (2011). Consumers' perceived quality, perceived value and perceived risk towards purchase decision on automobile. *American Journal of Economics and Business Administration*, 3(1), 47-57.
- Yu, T. K., & Wu, G. S. (2007). Determinants of internet shopping behavior: An application of reasoned behaviour theory. *International Journal of Management*, 24(4), 744.

- Yzer, M. (2012). Perceived behavioral control in reasoned action theory a dual-aspect interpretation. *The Annals of the American Academy of Political and Social Science*, 640 (1), 101-117.
- Zaichkowsky, J. L. (1985). Measuring the involvement construct. *Journal of Consumer Research*, 12(3), 341-352.
- Zaichkowsky, J. L. (1986). Conceptualizing involvement. *Journal of Advertising*, 15(2), 4-34.
- Zhou, K. Z., Su, C., & Bao, Y. (2002). A paradox of price–quality and market efficiency: a comparative study of the US and China markets. *International Journal of Research in Marketing*, 19(4), 349-365.
- Zhu, P. T. (2004). The relationship among community identification, community trust, and purchase behavior-the case of RVs communities. *Masters degree thesis, Graduate School of International Business, National Dong Hwa University, Shoufeng*.
- Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2010). Research Business Methods. *Boston: South-Western Cengage Learning*.



APPENDICES

APPENDIX A

Cover letter



Dear Respondent,

I am a PhD scholar at University Utara Malaysia. I am conducting research on *investment intentions of individual investors*. I request you to participate in this study by answering the attached questionnaire that will hardly take your 10 minutes.

The questionnaire is anonymous and your responses will be used for the academic research purpose only. If you have any questions or concerns about the questionnaire or about participating in this study, you may contact me at **imranarshaduum@gmail.com**. You can also request for key research findings through same email address.

Thanks for your cooperation.

Sincerely,

Imran Arshad
School of Economics, Finance and Banking
Universiti Utara Malaysia,
Sintok, 06010, Kedah Darul Aman, Malaysia
Cell # 0060124812514
imranarshaduum@gmail.com

Code	Please encircle the number that indicates the extent to which you agree or disagree with the statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
RA1	I would rather be safe than sorry.	1	2	3	4	5
RA2	I want to be sure before I make a choice.	1	2	3	4	5
RA3	I avoid risky choices.	1	2	3	4	5
RA4	I am careful about trying new things.	1	2	3	4	5
RA5	I would stick to the things that I know than trying new things.	1	2	3	4	5
RA6	I don't buy if I don't know the risk of the purchase.	1	2	3	4	5
RA7	I don't choose risky alternatives.	1	2	3	4	5
RA8	I only make a decision when I think I can predict the outcomes	1	2	3	4	5
UA1	It is important to have things spelled out in detail, so I know what I am expected to do.	1	2	3	4	5
UA2	It is important to follow set procedures closely.	1	2	3	4	5
UA3	Rules and regulations are important because they tell me what is expected by me.	1	2	3	4	5
UA4	Standardised procedures are helpful to me.	1	2	3	4	5
UA5	Instructions are important to me.	1	2	3	4	5
OC1	I am sure that I can make the correct investment decision	1	2	3	4	5
OC2	I trust my ability to start and manage investments	1	2	3	4	5
OC3	I feel that on average my investments will perform better than the stock market.	1	2	3	4	5
OC4	I believe I can master the future trend for my investment.	1	2	3	4	5
OC5	I expect my investments will perform better than the stock market.	1	2	3	4	5
OC6	I feel more confident in my own investment opinions over opinions of financial analysts.	1	2	3	4	5
OC7	I think my market predictions will be consistent with my perspectives	1	2	3	4	5
PK1	I know a lot about investing in stocks.	1	2	3	4	5
PK2	I know more about investing in stocks than most of other people.	1	2	3	4	5
PK3	I am very well informed about investing in stocks.	1	2	3	4	5
PK4	Compared with experts, I know a lot about investing in stocks.	1	2	3	4	5
PK5	I search a lot of information when I am considering investing in stocks.	1	2	3	4	5
PK6	I often invest in stocks.	1	2	3	4	5
PK7	I have a lot of experience in investing in stocks.	1	2	3	4	5
PI1	Making a decision to invest in stocks would be significant to me.	1	2	3	4	5
PI2	Making a decision to invest in stocks does matter to me.	1	2	3	4	5
PI3	Making a decision to invest in stocks would be important for me.	1	2	3	4	5

Code	Please encircle the number that indicates the extent to which you agree or disagree with the statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
PI4	Making a decision to invest in stocks would be worthless to me.	1	2	3	4	5
PI5	Making a decision to invest in stocks would mean a lot to me.	1	2	3	4	5
PI6	Making a decision to invest in stocks would be essential for me.	1	2	3	4	5
PI7	Making a decision to invest in stocks would be useless for me.	1	2	3	4	5
PI8	Making a decision to invest in stocks would be a great concern to me.	1	2	3	4	5
PI9	Making a decision to invest in stocks would be desirable for me.	1	2	3	4	5
PI10	Making a decision to invest in stocks would be vital for me.	1	2	3	4	5
PI11	Making a decision to invest in stocks would be interesting for me.	1	2	3	4	5
PBC1	For me it's possible to invest in the stocks.	1	2	3	4	5
PBC2	I am capable of selecting stocks.	1	2	3	4	5
PBC3	I understand and can easily follow the development of the stock market.	1	2	3	4	5
PBC4	There is plenty of opportunities for me to invest in stocks.	1	2	3	4	5
PBC5	I know the necessary details for stock investment.	1	2	3	4	5
PBC6	I have control over investing in the stocks.	1	2	3	4	5
SN1	Most people that are important to me, also invest in stocks themselves.	1	2	3	4	5
SN2	Most people that are important to me regard stock investment as positive.	1	2	3	4	5
SN3	Most people (whose opinion I highly respect) would approve and recommend me to invest in stocks.	1	2	3	4	5
SN4	People who are important to me would think that I should invest in stocks.	1	2	3	4	5
SN5	In my environment, people who invest in stocks have more prestige than those who do not.	1	2	3	4	5
PR1	I think I could easily make mistakes if I invest in stocks.	1	2	3	4	5
PR2	Investing in stocks could cause lots of trouble.	1	2	3	4	5
PR3	Investing in stocks would be risky.	1	2	3	4	5
PR4	Investing in stocks would be foolish.	1	2	3	4	5
PR5	There is a high potential for loss if I invest in stocks.	1	2	3	4	5
PR6	People investing in stocks could lose a great deal.	1	2	3	4	5
PR7	I better invest my fund somewhere else other than stocks.	1	2	3	4	5
PR8	I think, investing in stocks is highly risky.	1	2	3	4	5
II1	I intend to invest in stocks in the upcoming months.	1	2	3	4	5
II2	I plan to invest in stocks in the upcoming months.	1	2	3	4	5

